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Notes on North American TACHINIDÆ *sens. str.* with descriptions of new Genera and Species.

PAPER II.*

BY C. H. TYLER TOWNSEND.

The study of the Tachinidæ has progressed considerably of late in the line of descriptive work. Up to within a few years a large number of forms, necessitating the foundation of new genera, had remained unnoticed. Mr. van der Wulp has given us descriptions of a considerable number of these, which, however, are mainly confined to Old Mexico. Messrs. Brauer and von Bergenstamm have erected a great number of genera from all parts of the world, some of which can be employed; but many are unfortunately either based on invalid characters, or insufficiently described and without figures to enable their recognition. A few other authors have contributed isolated descriptions of genera in this group. Notwithstanding these recent additions I believe it necessary at this time to erect a number of new genera for the reception of forms herein described, which cannot be reconciled with any of the published descriptions or figures of previous genera.

The present paper is the result of a study of a considerable collection of material, all from within the limits of the United States; and will, the writer hopes, contribute toward a more accurate knowledge of our many species among these useful parasitic flies.

SIPHOPLAGIA† n. gen.

Belongs in the sub-group with *Plagia*, from which it differs principally by the elongate, slender proboscis, and absence of bristles on the sides of face. Head, thorax and abdomen of nearly equal width in the ♀ (? abdomen narrower in ♂). Eyes bare; front wide, prominent; frontal bristles strong, descending but little below the base of antennæ; a strong pair at each vertical angle directed backward, the outer bristle also directed outward; three orbital bristles, the middle one weak; first frontal bristle from the vertical pair directed outward and backward, the second inward, a little back-

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† Σιφωv (siphon) + *Plagia*.

ward, the others directed inward, decussate, especially in front; sides of face moderately broad, without bristles, but with scattered, short hairs, which extend also among the frontal bristles; face somewhat retracted, oral margin prominent, facial ridges bare; vibrissæ decussate, inserted near the oral margin; cheeks broad, one-half the height of eyes in ♀ (? narrower in ♂), bare, with a fringe of bristles on the lower and front border, extending but slightly above the vibrissæ. Antennæ little more than two-thirds the length of the face; first joint short, second somewhat elongate, third almost twice the length of the second, not widened, rounded at the end; arista curved outward, thickened nearly to the tip, extremely fine and short pubescent, distinctly 3-jointed, the second joint elongate. Proboscis elongate, about twice as long as height of head, geniculate, bent forward, slender and corneous, labella very slightly developed; palpi well developed, cylindrical, slightly thickened at tip. Scutellum with a decussate, apical pair of macrochætæ; a long lateral pair reaching to base of third abdominal segment; still a third shorter lateral pair. Abdomen (♀) long oval in outline, flattened, vaulted, first segment abbreviated; macrochætæ of abdomen all marginal on segments one to four. Legs moderately long. Wings with a small costal spine; apical cell ending on the front border of the wing very much before the apex, narrowly open or almost closed in the margin; hind cross-vein very oblique, arising opposite or a little behind the small cross-vein, approximating the bend of the fourth longitudinal; apical cross-vein also oblique, both nearly parallel with the hind border of wing; fourth vein with a very long stump at its angle; third vein spined on the proximal two-thirds of its extent. Type, *S. anomala* n. sp.

This genus differs from *Plagia*, as above stated, by the structure of the proboscis, and the absence of rows of bristles on the sides of the face; also by the macrochætæ being only marginal. It agrees with it in all other essential characteristics.

Siphoplusia anomala n. sp. ♀.—Black, cinereous. Eyes brown; face and cheeks silvery-white pollinose; front fully one-half the width of head, shaded with cinereous; frontal vitta brownish, anteriorly about one-third the width of the front, widening behind where it splits on each side of the ocellar area; four pairs of ocellar bristles, a rather weak pair at the vertex directed outward and backward, but inclined forward at the point, a weaker pair just in front of these directed forward and a little outward, a strong pair farther in front directed widely outward and but very slightly forward, and a weak pair immediately outside the last directed outward and more forward, weak bristly

hairs among the bristles; first and second antennal joints reddish yellow, second black-bristly, a longer bristle on the lower front border; third joint and arista blackish, the third joint a little less than twice as long as the second; proboscis black, palpi reddish yellow, with several black bristles on underside; occiput cinereous pollinose, gray hairy, with a fringe of black bristles on orbital margins. *Thorax* and scutellum cinereous pollinose, covered above with short, black, bristly hairs and long black bristles posteriorly inclined; the thorax with two median, posteriorly divergent black vittæ, which generally become obsolete a little behind the transverse suture, and with a wider, irregularly defined, interrupted blackish vitta outside these which runs nearly to the scutellum; humeri and pleuræ cinereous pollinose, covered with short black bristly hairs; the pleuræ with black bristles on the hind border posteriorly inclined, except the two lower ones which are anteriorly inclined; some bristles below humeri directed upward, outward and forward. *Abdomen* cinereous pollinose, covered with short, black, depressed bristles, with some longer bristles on the sides and beneath; first segment bearing a lateral marginal macrochaeta usually with a weaker one in front of it; second with a lateral marginal one, a weaker one outside it, and a median marginal pair above; third segment with eight marginal macrochaetæ, the outer ones below the lateral border; fourth segment with six marginal ones above and several intermixed with shorter bristles below. *Legs* black, more or less cinereous; femora and tibiæ black, hairy and with stout bristles, particularly the tibiæ; coxæ with posteriorly directed bristles on the forward surface; claws and pulvilli rather short. *Wings* grayish hyaline, slightly flavous at base, veins mostly flavous; first longitudinal vein spined nearly to the costa; tegulæ silvery white, with flavous borders; halteres fuscous. Length 8—9 mm.; of wing about 6 mm.

Described from three female specimens; Las Cruces, New Mexico. Taken June 9–10 on flowers of *Aster spinosus*. This seems to approach v. d. Wulp's *Plagia incognita*, but it has a long stump at the bend of the fourth vein, and the abdomen is nearly uniform cinereous pollinose instead of black with gray front borders to the segments.

GNIOCHÆTA* n. gen.

Like *Siphoplagia*, but with short fleshy proboscis, a row of bristles on the sides of the face, and short, distinctly geniculate arista. Belongs in the sub-group with *Plagia*. Head, thorax and abdomen of equal width in ♀; the abdomen of ♂ narrower. Eyes bare; front broad, prominent; vibrissæ decussate and inserted near oral margin; frontal bristles arranged as in *Siphoplagia* (except the ocellar bristles); three orbital bristles in both sexes, the middle one weaker; sides of face and front with some fine, short, scattered hairs; cheeks about one-third of eye-height in ♀, one-fourth in ♂, bare, with a fringe of bristles on lower border; facial ridges bare; sides of face with a row of bristles descending to near the oral margin as though a continuation of the frontal row. Proboscis rather

* Γονυ (knee) + χαιτη (chæta).

short, not as long as hight of head, fleshy, labella well developed ; palpi sub-filiform, very slightly thickened toward the tip. Antennæ shorter than the face (about two-thirds its length) ; first joint short, second somewhat elongate, third less than twice the length of the second ; arista bare, short, somewhat thickened, 3-jointed, geniculate, the second joint much elongate ; macrochætæ of scutellum and abdomen as in *Siphoplagia*, the longest pair on the scutellum reaching almost to the middle of the third abdominal segment. Abdomen of ♀ nearly oval, more pointed behind than in *Siphoplagia* ; of ♂ much narrower, almost conical ; first abdominal segment abbreviated. Wings without costal spine ; posterior and apical cross-veins very oblique, parallel with the hind border of the wing ; posterior cross-vein arising much before the small cross-vein, terminating in the middle between the latter and the bend of the fourth vein, which bears a very long stump of a vein ; apical cell almost closed in the margin, ending very much before the tip of the wing ; third vein spined very nearly its whole length, first spined all the way to costa. Type, *G. plagioides* n. sp.

This genus differs from *Plagia* principally in the geniculate arista.

Goniochæta plagioides n. sp. ♀.—Black, silvery. Eyes dark brown ; front about five-ninths the width of head, face of equal width ; front, face and cheeks silvery white ; frontal vitta brownish cinereous, split posteriorly enclosing the ocellar area ; two pairs of ocellar bristles intermixed with black hair, the pair behind the ocelli directed backward and a little outward, the longer curved pair in front directed outward and a little forward ; first and second antennal joints and base of third, particularly the posterior basal portion, reddish yellow ; arista and remainder of third joint black ; second joint with a black bristle on its anterior surface, third joint a little more than one and one-half times as long as the second ; proboscis brownish ; palpi yellow, with scattered hairs and three black bristles on under surface near tip ; occiput silvery, clothed with gray hair, with a fringe of black bristles on the orbital margin. Thorax and scutellum silvery, clothed with short bristly hairs and posteriorly inclined macrochætæ ; two narrow, median, posteriorly divergent, black vittæ begin at anterior border of thorax and become obsolete a little beyond the suture, a median vitta arising between them at the suture ; a wide, less well defined vitta on each side, interrupted at the transverse suture ; humeri and pleuræ silvery, latter with posteriorly directed bristles on hind border, except two lowest, the upper one of which is directed outward and upward, the lower one outward, downward and forward : some bristles below humeri directed outward, forward and upward. Abdomen covered with short, black, depressed bristles, first segment black ; basal half of second, third and fourth segments silvery pollinose, posterior half black, shining ; first segment with a lateral macrochæta on margin ; second with a lateral and a median pair on margin ; third segment with eight marginal macrochætæ, the outer ones on the ventral surface and apparently still others on venter ; fourth segment with four marginal macrochætæ above and several intermixed with

shorter bristles below. *Legs* black, femora and coxæ more or less silvery; femora and tibiæ clothed with black hairs and stout bristles, some macrochaetæ on the middle tibiæ; coxæ with posteriorly dilated bristles on anterior surface; claws and pulvilli rather short. *Wings* grayish hyaline, very slightly fulvous at base, veins mostly flavous; tegulæ nearly white, borders almost concolorous; halteres fuscous.

♂.—Differs as follows: Front and face narrower, about three-sevenths the width of head; cheeks about one-fourth hight of eyes; form narrower; abdomen narrowed, nearly conical; claws and pulvilli about same length; orbital bristles same. Length 8 mm., or slightly more; of wing 5.5–6 mm.

Described from one ♂ and one ♀; Las Cruces, New Mexico. The ♀ taken June 10th on flowers of *Aster spinosus*; the ♂ taken July 10th. This form seems at first to approach *Plagia americana* v. d. Wulp, but it is very distinct in the short and geniculate arista, and the long stump at bend of fourth vein.

Genus *Tachinodes* Br. and Bgst., Zweifl. kais. Mus. W. iv, 133. This genus, so far as I can ascertain from comparison of the descriptions, is the same as *Nemochaeta* v. d. Wulp. Mr. van der Wulp's genus has priority, as it was described in 1888 (Biol. C.-A. Dipt. ii, 38). The above authors give no figure of their genus *Tachinodes*, which was erected for *Tachina hystrix* Fab. from Brazil.

Tachina spinosula n. sp. ♀ (?).—Blackish cinereous. Head a little wider than thorax, which is about same width as abdomen. *Eyes* brown, bare; front considerably more than one-third the width of head, golden or brassy-cinereous on the sides, somewhat prominent before; frontal vitta blackish, with a golden shade in some lights, hardly one-third the width of front, except behind, where it widens and splits on each side of the ocelli; frontal bristles descending about half-way down the sides of face, sparse, some fine hairs outside them; a pair of bristles at each vertical angle, the inner stout one directed strongly backward, the outer one directed outward; next frontal bristle short, directed outward and backward; next one long, directed backward; rest directed inward, hardly decussate to base of antennæ; two orbital bristles; face silvery. facial depression rather wide below, facial ridges bare, except a few bristles above vibrissæ; sides of face not wide, bare, except for descending frontal row of bristles: vibrissæ decussate, inserted near oral margin; cheeks invaded by occipital area, moderately wide, black hairy under eyes, silvery, with bristles on lower border; antennæ blackish, shorter than face; first joint short, second elongate, more or less silvery, bristly above; third joint about one and one-half times as long as second, only moderately wide, truncate, posterior apical corner rounded; arista black, thickened almost half its length, microscopically short pubescent, indistinctly 3 (?)-jointed, second joint not elongate; proboscis about as long as hight of head, brownish or blackish, considerably thickened, labella well developed; palpi orange-yellow, darker at base, slender, hardly thickened on distal two-thirds, with some long black hairs on underside; occiput cinereous, thickly gray hairy, with a fringe of black hairs on orbital margins. *Thorax* and scutellum hairy and bristly, cinereous, with four narrow dark vittæ; scutellum with

a short, decussate apical pair of macrochætæ; a long pair just outside them which would reach about to base of third abdominal segment, two more lateral macrochætæ on each side; humeri and pleuræ cinereous. *Abdomen* rather ovate, vaulted, clothed with short, black bristles; first segment somewhat shortened, entirely black; other segments blackish, more or less silvery or cinereous; first segment with a median marginal pair of macrochætæ; second with a median discal and two median marginal pairs; third with a median discal pair and eight long marginal macrochætæ above, some shorter ones below; anal segment with a median discal pair, surmounted by a tuft of rather short macrochætæ. *Legs* blackish, black-hairy, femora and tibiæ slightly silvery, latter with stout bristles; claws and pulvilli a very little elongate. *Wings* a little longer than abdomen, moderately narrow, grayish hyaline, slightly pale tawny at base, with small costal spine, third vein with a few spines at base; apical cell nearly closed in the margin well before tip of wing; fourth vein bent at an angle, with a wrinkle at bend; hind cross-vein nearly straight, oblique, nearer to bend of fourth vein; tegulæ nearly white, margins slightly yellowish; halteres fuscous, yellowish at base. Length 6 mm.; of wing 4.5 mm.

Described from one specimen received from Mr. Chas. Robertson, Carlinville, Ill. This is a good, typical *Tachina* in the sense of Schiner; the only difference being in the nearly closed apical cell. Doubtless, further specimens will show the apical cell to be normally more open.

Tachina aletix Riley, Can. Ent. xi, 162.

As the eyes are described "thinly pubescent," this is not a *Tachina*. Besides, the third antennal joint is said to be "three or four times the length of the second," while in *Tachina* it is at most twice the length of the elongate second. The description is insufficient to indicate the genus. The surmise would be that the species belongs in *Exorista*.

Tachina (Masicera) armigera Coquillett, Ins. Life i, 332.

This species should evidently be referred to *Masicera*.

Pachyophthalmus aurifrons n. sp. ♂.—Blackish, cinereous. Head a little wider than thorax, abdomen a little narrower. *Eyes* large, occupying more than two-thirds the front surface of the head, brown, bare; front about one-fifth the width of head, narrowly produced beyond the eyes, face widening from antennæ to oral margin; sides of face and front golden, especially when viewed from behind, shading to dark on vertex; frontal vitta very narrow, blackish, widened and pronged behind enclosing the ocelli; frontal bristles descending only to base of antennæ, rather thick, nearly all equally strong, in a double row, the outer row weaker, the most of the inner row directed inward and forward, decussate; both bristles of the pair at vertical angles directed outward, the inner one longer and directed more backward; the usual two pairs of ocellar bristles intermixed with weak hairs; facial depression and cheeks silvery; cheeks moderately wide, invaded by the cinereous, black hairy occipital area,

bristly on lower border, otherwise bare; sides of face narrow, bare; facial ridges bristly for a short distance above vibrissæ, which are decussate and inserted a little above oral margin at a constriction of the facial ridges; antennæ very short inserted below middle of head, blackish or brown; first joint short, second much longer, bristly in front with a longer bristle before apex, third joint but little longer than second; arista thickened for little less than half its length, with some microscopic very short pubescence, black, 3-jointed, second joint not elongate; proboscis moderately stout, about as long as height of head, black, brown at tip, labella well developed; palpi rather slender, hardly thickened toward tip, blackish, with several black bristles on under surface; occiput cinereous, black hairy, brownish-cinereous around the borders, with a fringe of black hairs on orbital margins. *Thorax* and scutellum cinereous, with three wide, brownish cinereous vittæ terminating at scutellum; thorax sparsely hairy, with very few bristles; scutellum with an apical, decussate pair of macrochætæ reaching beyond base of second abdominal segment, two lateral ones on each side in front of the apical pair; humeri and pleuræ light cinereous. *Abdomen* conico-ovate in outline, first segment not shortened; color black, unevenly cinereous pollinose, black-hairy, with weak macrochætæ only marginal; first two segments each with a median pair of macrochætæ and a lateral macrochæta-like bristle; third segment with about ten, anal with about eight macrochætæ. *Legs* black, femora slightly cinereous, long-hairy, middle and hind tibiæ bristly; claws and pulvilli elongate. *Wings* a little longer than abdomen, narrow, without costal spine, grayish hyaline; apical cell open, ending a little before tip of wing; fourth vein bent at an angle, with a well-defined wrinkle at the bend; hind cross-vein not straight, nearer to the bend of fourth vein; tegulæ grayish white, halteres flavous.

♀.—Differs only in the considerably shorter claws and pulvilli. The front is about the same width. Length $5\frac{1}{2}$ — $6\frac{1}{2}$ mm.; of wing 4— $4\frac{3}{4}$ mm.

Described from one ♂ and three ♀ specimens received from Mr. Charles Robertson, Carlinville, Ill. Differs from Schiner's description of *Macronychia* as follows: The sides of face are narrow and bare; the front is rather narrow, and of equal width in both sexes; the arista is seen to be distinctly 3-jointed under a high-power lens. It belongs to *Pachyophthalmus* Br. and Bgst. as separated by them from *Macronychia*; and on account of still other differences beside those mentioned above may perhaps better be located in the new genus. It has the front narrower than in *Miltogramma*.

Miltogramma flavicornis n. sp. ♂.—Black, cinereous and reddish. *Eyes* light brown, bare, facets larger in front; front a little over one-fourth width of head, rather prominent before, brassy or slightly golden, with some short, weak hairs outside the frontal bristles; face much wider than front; frontal vitta brownish, very narrow before, widening toward ocelli, where it divides into a prong on each side; face and cheeks silvery-white, facial depression occupying one-half the width of face, sides of face, therefore, moderately wide, bare; frontal bristles descending only to base of antennæ; a pair of posteriorly directed bristles at each vertical angle, the outer shorter ones directed also outward; next frontal bristle directed mostly backward, rest directed inward, decussate; four

(?) orbital bristles, the posterior one directed backward, the three others forward (in the only ♂ under observation there are three orbital bristles on one side and the forward one is directed backward like the posterior one, while on the other side there are four orbital bristles and only the posterior one is directed backward); the usual two pairs of ocellar bristles, front pair directed strongly forward and somewhat outward, the shorter hind pair directed a little outward; cheeks wide, invaded under the eyes by the occipital area, otherwise bare, with bristles on lower and forward borders; vibrissæ decussate, inserted well above the oral margin at a constriction of the facial ridges, which are bristly for a short distance above them; face hardly straight, a little oblique, epistoma hardly prominent; antennæ a little more than one-half length of face, flavous, first joint extremely short; second of moderate length, well clothed with short, black bristles, and with a long straight bristle on front border; third joint about twice the length of second, not widened, light flavous; arista black or dark brown, bare save for a microscopic pubescence, thickened about half its length, distinctly 3-jointed, the second joint a little elongate; proboscis black, about as long as hight of head, not thick, labella considerably developed; palpi flavous, rather long, slender, thickened at tip, with several fine, black bristles on under surface; occiput cinereous, silvery-bordered, black-hairy, with fringe of black hairs on orbital margins. *Thorax* and scutellum cinereous with a sort of brassy tinge, hairy, with but few bristles on thorax mostly behind; a median pair of narrow, more or less indistinct, sometimes sub-obsolete dark vittæ on thorax; scutellum with an apical pair of macrochætæ, which are decussate or barely so, and reach nearly to middle of second abdominal segment, and two lateral macrochætæ on each side; humeri and pleuræ cinereous. *Abdomen* rather short, conical, clothed with appressed black bristles; first segment hardly shortened, blackish, reddish below and on the sides, sometimes above on the hind margin except in middle; second segment all reddish or orange, covered with a silvery sheen, except a median black vitta very narrow in front and much widened behind; third segment reddish in front, silvery, broadly blackish behind, the posterior widened portion of the median vitta more distinctly shining black; anal segment broadly silvery in front, the median posterior portion blackish; the silvery pollen of the segments has much of a golden tinge in some lights, especially on the anal segment; venter mostly orange, blackish at anus; first and second segments without macrochætæ; third segment with about eight rather weak, marginal macrochætæ, the outer ones only a little stouter than the bristles of the abdomen; anal segment with about six similar, marginal macrochætæ. *Legs* black, femora more or less silvery cinereous, femora and tibiæ bristly; claws and pulvilli elongate. *Wings* grayish hyaline, without costal spine, third vein with a small bristle at base; apical cell open, terminating considerably before tip of wing, fourth vein bent at an angle, with a wrinkle appearing like a stump; hind cross-vein a little curved, well approximated to the bend of the fourth; tegulæ nearly white, halteres somewhat fuscous.

♀.—Differs in having the claws and pulvilli short. The front is nearly the same width, or slightly narrower. Length 6—6.5 mm.; of wing 4.5—5 mm.

Described from two specimens from Mr. Charles Robertson, collected near Carlinville, Ill., which I am confident are ♂ and ♀ of the same species, although both of them have the facets of the eye

enlarged in front, and the one with the short claws seems to have the front slightly narrower. The claws of the other are very elongate.

I have a very much smaller ♂ received from Mr. Robertson with the above, which is only 4.5 mm. long. It has the claws and pulvilli elongated and very closely resembles the larger ♂, which is 6.5 mm long. I hesitate to describe it from one specimen, as it seems to differ only in its very much smaller size and darker abdomen. The abdomen is but slightly reddish on sides of second segment, rest blackish, silvery pollinose. The arista, however, is not so distinctly jointed. It differs from the following two species in its brassy or golden front, and long flavous third antennal joint. In case it is recognized from this description and found to be distinct, it may be called *M. similis*.

The only differences between the above described *Miltogrammas* and Schiner's generic description are that the arista is quite distinctly 3-jointed, and the third antennal joint is about twice the length of the second.

Miltogramma argentifrons n. sp. ♂.—Differs from *M. flavicornis* as follows: Smaller, without red on abdomen. *Front* silvery, including vitta, sides darker in some lights; only three orbital bristles; frontal bristles not so numerous or closely set, rather sparse; antennæ entirely dull blackish, except apical rim of second joint, which is light yellowish, third joint scarcely longer than the second; arista black, thickened only at base, bulbous, indistinctly jointed; sides of face finely hairy; facial depression narrow, scarcely any bristles on facial ridges above the vibrissæ; palpi blackish or dark brown; apical scutellar pair of macrochætæ sometimes not, but usually decussate. *Abdomen* blackish or dark brown, light cinereous pollinose, no distinct median vitta; first segment with a weak lateral macrochætæ on the margin; second with a lateral marginal one and a median marginal pair; third segment with eight marginal, and anal segment with six marginal, as in the above species. Claws and pulvilli elongate. *Wings* smaller; halteres flavous. Length 4—5.5 mm.; of wing 3.5—4.5 mm.

Described from four ♂ specimens received from Mr. Charles Robertson, Carlinville, Ill. One of these specimens is much larger (5.5 mm.) than the three others (4—4.5 mm.), and also differs in having a median macrochætæ (its mate probably lost) on margin of first abdominal segment. The sides of the face are only very slightly hairy. It does not otherwise differ appreciably.

Miltogramma trilineata v. d. Wulp, Biol. C.-A. Dipt. ii, 89. One specimen from S. Illinois (Robertson) I believe should be referred to this species. It much resembles, but is larger than *M. argentifrons* Towns.

Miltogramma cinerascens n. sp. ♀ (?)—Differs from *M. flavicornis* as follows: Smaller, wholly golden-cinereous. *Front* narrower, frontal bristles sparse, less numerous; three orbital bristles; front, face and cheeks light golden, sides of face finely hairy; frontal vitta a little deeper golden, blackish toward antennæ; antennæ dull blackish, second joint reddish at tip, third joint only a little longer than second; arista black, thickened only at base, bulbous, rather indistinctly jointed; facial depression narrower, sides of face slightly wider, scarcely any bristles on facial ridges above vibrissæ; proboscis black, brown at base; palpi stouter, club-shaped. light brown, in one specimen dark brown, lighter at base. *Thorax*, scutellum and abdomen almost entirely cinereous, the abdomen with more of a golden reflection, hind borders of the segments usually darker; a weak lateral macrochæta on margin of first abdominal segment; second segment with a lateral maginal one and a median marginal pair; third with about eight, and anal segment with about six marginal macrochætæ. Claws and pulvilli only slightly elongate. *Wings* smaller, halteres flavous. Length 4.5 to nearly 5 mm.; of wing $3\frac{1}{2}$ — $3\frac{3}{4}$ mm.

Described from three specimens received from Mr. Charles Robertson, Carlinville, Ill.

Masicera nigrita n. sp. ♂.—Black, shining, somewhat cinereous. *Thorax* and abdomen about same width, head a little wider. *Eyes* brown, bare; front about one-third the width of head, considerably produced before, face much wider; front and face silvery pollinose, cheeks toward oral margin narrowly reddish or brownish; frontal vitta blackish, about one-third width of front, pronged behind enclosing ocelli; frontal bristles descending about to base of third antennal joint; a pair of bristles at each vertical angle, the inner long one directed backward, the outer short one directed outward; next two on each side directed backward, the posterior one also outward, remainder directed inward, more or less decussate; no orbital bristles; a row of bristly hairs outside the frontal bristles; ocellar area with a pair of rather strong bristles in front directed forward and a little outward, and a very short pair behind at the vertex; sides of face moderately narrow, bare; cheeks replaced beneath the eyes by an extension of the occipital area, bordered below by some strong bristles; vibrissæ decussate, inserted almost on the oral margin; face strongly oblique, receding, facial depression rather wide, considerably hollowed, a little elongate; facial ridges with a few bristles above the vibrissæ, surmounted by several fine hairs; antennæ shorter than the face, blackish; first joint short, second a little longer, bristly before; third about four times the length of the second, a little widened, truncate at apex, the posterior corner rounded; arista black, minutely pubescent, thickened more than half its length, apparently only 2-jointed, the basal joint very short; proboscis black or brownish, short, thick, fleshy, not so long as height of head, labella well developed; palpi blackish, rather thick, curved, club-shaped, short hairy with several longer hairs on lower surface before tip; occiput black, more or less cinereous, black hairy with fringe of bristly hairs on orbital margins. *Thorax* and scutellum black, somewhat cinereous, black hairy and bristly; thorax with a median pair of narrow, posteriorly divergent, blackish vittæ in front, becoming obsolete about the suture; two lateral pairs of stout macrochætæ on scutellum, the hind pair reaching nearly to base of third abdominal segment, apical pair directed almost straight upward and curved inward, strongly decussate; humeri and pleuræ cinereous or slightly silvery. *Abdomen*

oval, hardly vaulted, black, shining, covered with short depressed black bristles, covered with short depressed black bristles, first segment a little shortened, second to fourth segments faintly rather broadly silvery at base; macrochætæ rather stout and abundant, first segment with a median marginal pair, and one lateral marginal macrochætæ; second segment with a median discal and marginal pair, and a lateral marginal one; third segment with a median discal and marginal pair, a lateral marginal pair each side, several marginal on venter, and some shorter subdiscal and discal ones on sides; fourth segment well armed with discal, subdiscal and marginal macrochætæ. *Legs* moderately long, black, faintly cinereous or silvery; femora a little, tibiæ strongly bristly, especially middle and hind pairs. *Claws* and pulvilli elongate. *Wings* but little longer than the abdomen, without costal spine, grayish hyaline, extreme base and veins slightly flavous; apical cell ending before tip of wing, closed in border; fourth vein bent at an angle, without stump or wrinkle; hind cross-vein nearly straight, oblique, a very little approximated to the bend of the fourth vein; tegulæ nearly white, halteres fuscous. Length 6 mm.; of wing 4.5 mm.

Described from one specimen received from Mr. Chas. Robertson, Carlinville, Ill. This belongs in the subgenus *Ceromasia* Rond. and is very near *M. luctuosa* v. d. Wulp. But it is more black, very faintly cinereous, and the apical cross-vein is distinctly curved or bowed.

Masicera sordicolor n. sp. ♂.—Cinereous. Head, thorax and abdomen nearly equal in width. *Eyes* brown, bare; front at vertex about one-fourth width of head, widening before, prominent, face much wider; frontal vitta black, nearly equal in width, enclosing the ocelli; frontal bristles descending about to base of third antennal joint, a strong one at each vertical angle, all the rest except two last ones directed inward and mostly decussate; no orbital bristles; a very few scattered fine hairs outside the frontal rows; two pairs of ocellar bristles, the forward pair directed inward and forward, decussate; face, cheeks and sides of front silvery-cinereous: sides of face moderately narrow, bare; face oblique, receding, facial depression moderately wide, facial ridges bare, except a few bristles just above the vibrissæ, which latter are decussate and inserted very much above the oral margin; cheeks slightly invaded by occipital area, black-hairy below posteriorly, with bristles on lower and forward margins; antennæ considerably shorter than the face, narrow, brownish, third joint slightly yellowish at base, second joint bristly before, first joint very short, second a little elongate, third about twice as long as second; arista blackish or brownish, thickened on its basal two-sevenths, microscopically pubescent, apparently 2-jointed, basal joint not elongate, proboscis moderately stout, brownish, labella well developed (proboscis not extended in this specimen), palpi orange-yellow, club-shaped, thickened at tip, black-bristly above and below; occiput cinereous, slightly gray hairy near center, black-hairy outside with a fringe of black hairs on orbital margins. *Thorax*, scutellum, humeri and pleuræ cinereous, hairy and bristly; thorax with four moderately narrow, dark vittæ, the outside pair obsolete in front and interrupted at the suture; scutellum with an apical, nearly straight pair of macrochætæ, three shorter lateral ones on each side, and one at forward angle. *Abdomen* conico-ovate, somewhat flattened, entirely cinereous, covered with short black hairs, first segment considerably shortened, macrochætæ

all weak; a median marginal pair, and a single lateral marginal macrochæta on each side on first segment, a lateral and a median marginal pair on second segment, third segment with about ten marginal ones; anal segment with some weak discal and marginal macrochæta. *Legs* blackish, femora and tibiæ somewhat cinereous, bristly, the tibiæ more strongly so. Claws and pulvilli very long. *Wings* grayish hyaline, longer than abdomen, moderately wide, with only two slightly longer costal spines at termination of auxiliary vein, third vein not spined at base, apical cell open, terminating but little before tip of wing, bend of fourth vein rounded, without stump or wrinkle, hind cross-vein sinuate, nearer to the bend of fourth vein, tegulæ smoky white, halteres flavous. Length 7.5 mm.; of wing 6.5 mm.

Described from one specimen received from Mr. Chas. Robertson, Carlville, Ill. This species I have located temporarily in *Masicera*, although it does not quite agree with the characters of that genus. The apical cell is opened only a little before the wing's tip, and the form is rather narrower than is usual in *Masicera*. It apparently approaches *Telothyria* v. d. Wulp, but differs from it by the prominent front, receding face and distinctly 2-jointed arista. Additional specimens will be needed to decide its location.

HYPERTROPHOCERA* n. gen.

Belongs in the *Tachininae* s. str., in section with bare eyes and apical cell closed in the margin. Head, thorax and abdomen nearly same width. Eyes bare, extending a little more than two-thirds the distance to the oral margin. Front nearly one-half the width of head, face wider; frontal bristles descending in a single row close to facial ridges as far down as lower border of the eyes; the bristles at the vertical angles and next one on each side directed backward, rest above antennæ directed inward, those below antennæ directed downward; three orbital bristles, and sometimes other smaller bristles intermixed. Front almost in a horizontal plane, strongly projected forward. Sides of face rather wide above, narrower below, bare except for the row of frontal bristles; cheeks bare, wide, nearly one-half the eye-height, with some bristles on lower border; face strongly oblique, receding, facial depression very long, narrow, facial ridges bare; vibrissæ inserted on oral margin, not very long, decussate. Antennæ about as long as the face; first joint erect, rather short; second joint about same length; third joint not much widened, but considerably thickened, very long, fully ten times the length of the second, apex angular on front border, rounded behind; arista distinctly 3-jointed, microscopically pubescent, thickened its whole

* Ὑπερτροφῆς (hypertrophied) + κεφαία (antenna).

length, rather long, the second joint slightly longer than thick. Proboscis short, hardly one-half as long as height of head, fleshy, labella well developed; palpi well developed, a little thickened at tip. Apical pair of scutellar macrochætæ not decussate, reaching only the second segment; a small pair in front of these, and a lateral pair nearer the suture. Abdomen rather broad, ovate, somewhat vaulted, first segment not abbreviated; macrochætæ marginal on third segment, discal and marginal on fourth (sometimes the second segment with some longer lateral bristles, which appear like macrochætæ). Legs not elongate, rather slender. Wings with a small costal spine, third vein spined at base; apical cell closed in margin a little before the tip of the wing; fourth vein bent at an obtuse angle, without stump or wrinkle at its bend; hind cross-vein sinuate, slightly nearer the bend of fourth vein. Type, *H. parvipes* n. sp.

This genus can hardly be confused with *Phorocera*, to which it bears some resemblance. The facial ridges are bare, but the frontal bristles descend in a row just outside the facial ridges, and near enough to cause reasonable doubt as to whether they should be considered ciliate. Besides this distinction, the eyes are bare, and the apical cell is closed.

Hypertrophocera parvipes n. sp. ♀ (?).—Grayish or cinereous. *Eyes* very dark brown, front and face silvery white pollinose, cheeks inclining to flesh color, frontal vitta broad, very light grayish brown, enclosing the ocelli behind; antennæ entirely light brownish yellow, first joint a little more deeply colored, the second joint with some black bristles, arista black; proboscis brownish yellow, partly blackish behind toward base, palpi brownish yellow, black bristly; occiput cinereous, black hairy, fringe on orbital margins not so well defined. *Thorax*, humeri and pleuræ cinereous, with short black hairs and posteriorly directed black bristles; scutellum cinereous, widely brownish yellow on hind border. *Abdomen* light brownish yellow, silvery pollinose, tawny toward the hind margin of segments, sutures lighter, with a broad median cinereous pollinose vitta interrupted at the sutures and indistinct in some lights, entirely covered with short, black, appressed bristles; ten marginal macrochætæ on third segment, and about as many each of discal and marginal on last segment; first and second segments without macrochætæ, except some macrochætæ-like bristles on side of second segment. *Legs* blackish, brownish yellow at joints, femora cinereous; coxæ, femora and tibiæ bristly; tarsi rather delicate, claws and pulvilli short. *Wings* subhyaline, slightly grayish, veins light brownish or tawny; tegulæ white; halteres brownish yellow, knobs whitish. Length 7.5 mm.; of wings 6 mm.

Described from one specimen, taken July 8th; Las Cruces, N. M.

Aphria ocyptera n. sp. ♂.—Much the facies of an *Ocyptera*; black, silvery, abdomen reddish on sides. Head, thorax and abdomen nearly equal in

width. *Eyes* brown, bare (except several microscopic, extremely indistinct hairs on lowest portion); front about one-third width of head at vertex, widening before, prominent, frontal bristles strong and thick, descending a little below base of antennæ, about to base of third antennal joint; one stout bristle at each vertical angle directed backward and slightly outward; next frontal bristle much shorter, directed backward; next stout, directed backward and slightly inward, rest directed inward, decussate to base of antennæ, no orbital bristles; two pairs of ocellar bristles, posterior pair shorter, nearly erect, pointed forward at tip, the forward pair long, curved strongly forward and a little outward; some fine hairs on front outside the frontal bristles; front, face and cheeks silvery white, the sides of front appearing bluish in some lights, frontal vitta yellowish brown, of equal width; sides of face of moderate width, bare below frontal bristles; cheeks one-third eye-height in width, bare except a few hairs on lower posterior portion, with strong bristles on lower borders; face oblique, receding, epistoma prominent, facial ridges bare, vibrissæ inserted a short distance above the oral margin, slightly decussate; antennæ black, first joint short; second joint elongate, somewhat silvery; third joint widened, about one and one-half times as long as second; arista short, black, minutely pubescent, thickened more than half its length, distinctly 3-jointed, second joint elongate; proboscis black, long, rather slender, straight, more than twice as long as height of head, corneous, labella but little developed; palpi light yellowish, slender, slightly thickened and darker at tip, black hairy; occiput convex, silvery, with grayish hair in centre, and a fringe of black bristles on orbital margins. *Thorax* and scutellum bluish black, silvery, more so on humeri and pleuræ, with macrochætæ and fine black hair; scutellum with a subapical pair of macrochætæ, not decussate, reaching nearly as far as to base of third abdominal segment; a pair of decussate bristly hairs are situated between them and represent the apical, decussate macrochætæ; a lateral macrochæta near the forward border of scutellum. *Abdomen* very elongate-oval, vaulted, first joint shortened; color shining black, bases of second to fourth segments more or less widely silvery, sides of second segment broadly orange-red (except sometimes hind margin) extending on the segment in front and behind; abdomen covered with short, black, depressed bristles and stout macrochætæ, the latter only marginal, except on last segment; first segment with one lateral macrochæta; second with a single lateral one and a median pair; third with eight above, and about as many weaker ones below; fourth segment with discal and marginal macrochætæ interspersed with shorter, stiff bristles, producing quite a spiny appearance. *Legs* black, femora and tibiæ slightly silvery, quite bristly, especially the middle and hind tibiæ; claws and pulvilli elongate. *Wings* grayish hyaline, slightly yellowish at extreme base, just as long as abdomen, with a strong costal spine, third vein spined more than half its length; apical cell closed in the border, ending considerably before the tip of the wing; curvature of fourth vein rounded, without stump or wrinkle; hind cross-vein oblique, not straight, about in the middle between the small cross-vein and bend of fourth vein; stump of fifth vein strong, nearly reaching the margin; tegulæ white, halteres light yellowish.

♀.—A female which I refer to this species differs as follows: *Eyes* more noticeably, microscopically hairy on lower portion; front wider; vibrissæ more decussate; two orbital bristles directed forward, and, particularly the front ones, outward; frontal bristles less thick; third antennal joint no longer than second; bristles on lower border of cheeks much weaker; sides of first abdominal segment broadly orange; claws and pulvilli short. Length 7 mm.; of wing 5 mm.

Described from two specimens; a ♂ from Prof. J. M. Aldrich, Brookings, South Dakota, and a ♀ from Prof. O. Lugger, Minn. (?) have preferred to locate this species in the genus *Aphria*, although in some features it closely approaches *Olivieria*, but differs from it also in others very essentially. The proboscis is long, but hardly bristle-like and not horizontally protruded. It is straight and perpendicularly extended, of about the same size and length as in *Ocyptera*, but, unlike that genus, possesses well-formed palpi. The eyes are extremely thinly pubescent and the apical cell closed in the margin, both of which characters lead to *Aphria* in Schiner's table, but are denied it in his generic characterization. From *Olivieria* it differs in the receding (not almost perpendicular) face, in the longer and more slender proboscis, and in the absence of discal macrochaetae on the abdominal segments.

Nemoræa masurius Wlk., *N. clusides* Wlk., and *N. trixoides* Wlk. Mr. van der Wulp has called attention to the fact (Biol. C.-A. Dipt. ii, 47) that none of these three species belong in the genus *Nemoræa*, since the eyes in all of them are bare.

Exorista ciliata n. sp. ♂.—Head rather small, not as wide as thorax, abdomen wider. *Eyes* reddish brown, thickly pubescent; front at vertex and middle hardly more than one-seventh the width of head, widening a little before, face much wider; frontal bristles in a single row, descending nearly to base of third antennal joint, front thickly fine hairy outside the rows of bristles; the pair of bristles at vertical angle very short, the inner one longer; no bristles in frontal row for nearly one-half way from vertical border of occiput to base of antennæ, only fine black hair; rest of space occupied by frontal row, the bristles directed inward, decussate, except below antennæ; occipital area finely black hairy, with two pairs of short bristles, the forward pair a little longer; no orbital bristles; vertex blackish, sides of front cinereous; frontal vitta blackish, velvety, moderately narrow, split behind on each side of ocelli; sides of face narrow, silvery-cinereous, rather thickly black hairy; facial depression silvery-cinereous, rather wide below, facial ridges bare, except a very few bristles just above vibrissæ, the latter decussate and inserted well above the oral margin; cheeks replaced under eyes by the cinereous, black hairy occipital area, also hairy in front, with bristles on lower and front borders; antennæ much shorter than face, blackish, third joint more brownish; first joint very short, second slightly elongate, bristly; third once and a half as long as second, but slightly widened; arista long, brown, slightly thickened about half its length, microscopically short pubescent, distinctly 3-jointed, second joint not elongate; proboscis apparently but half as long as height of head, blackish, labella much developed; palpi flavous, dark at base, somewhat club-shaped, black bristly; occiput cinereous, densely gray hairy, with fringe of black bristles on orbital margins. *Thorax*: widened, bluish black, slightly cinereous, hairy, bristly, with four quite

well-defined black vittæ; humeri and pleuræ cinereous; scutellum broadly tawny brown, narrowly blackish at base, with an apical decussate pair of macrochætæ, and two longer and one shorter lateral macrochætæ. *Abdomen* very broad oval, almost round, vaulted, flattened, covered with short black bristles, first segment not shortened; color black, sides of second and third segments pale orange, sometimes also part of first segment, apical half of anal segment orange or fulvous, basal portions broadly silvery pollinose, except first segment; first two segments with a lateral marginal macrochætæ; third segment with eleven (probably twelve normally) marginal macrochætæ; anal segment armed with somewhat weaker macrochætæ interspersed with bristles. *Legs* black, femora and tibiæ silvery, more or less bristly, hind tibiæ ciliate on outer border; claws and pulvilli very elongate. *Wings* much longer than abdomen, narrowed at tip, widening toward base, grayish hyaline, without costal spine, third vein not bristly; apical cell open, ending a little before tip of wing; fourth vein bent at an angle, without stump or wrinkle; hind cross-vein long, sinuate, nearly parallel with hind margin, nearer to bend of fourth vein; tegulæ whitish, halteres tawny. Length 8.5 mm.; of wing 7 mm.

Described from one specimen received from Mr. Charles Robertson, Carlinville, Ill.

A ♀ specimen, which, for the present at least, I prefer to regard as this species, differs as follows:

Head fully as wide as thorax; front nearly one-third width of head, sides golden pollinose; frontal bristles normal, extending back nearly to vertex, the two posterior ones on each side (not counting vertical bristles) directed backward; the pair of bristles at each vertical angle much longer; two orbital bristles; antennæ a little longer, third joint larger, crooked, bowed outward; palpi more yellowish. *Thorax* not widened. *Abdomen* narrower, only a little broader than thorax, with no red on sides, the anal segment nearly all deep fulvous; first segment without macrochætæ, second with a median marginal pair in addition to the lateral marginal one on each side; third segment with ten marginal macrochætæ, anal segment not so bristly. *Claws* and pulvilli but little elongate. *Wings* not so pointed toward tip; third vein spined at base. Length 8 mm.; of wing 6.5 mm.

One specimen (Robertson), Carlinville, Ill.

This is not the genus *Masipoda* Br. and v. Bgst., but connects that genus with *Exorista*. It belongs in the vicinity of *E. tricolor* v. d. Wulp from Mexico.

Exorista flavicauda Riley. This species should be known as *Frontina flavicauda* Riley. Two specimens from Mr. Charles Robertson, collected in South Illinois, agree well with the description and figure, and belong to the genus *Frontina*.

LACCOPROSOPA* n. gen.

Belongs in the Tachininae s. str. Has much the general facies of a Sarcophagid. Head, thorax and abdomen of nearly same width. Eyes bare, extending about two-thirds distance to the oral margin. Front somewhat prominent, about one-third the width of head, face much wider; a pair of bristles at each vertical angle, the inner long one directed inward and backward, almost decussate with the corresponding one on the other side, the small one directed outward; succeeding frontal bristles directed inward, decussate, except the posterior two pairs; three orbital bristles, sometimes a well developed fourth one; short hairs outside the frontal bristles. Sides of face of moderate width, with a row of bristles from the base of antennæ to the lower border of eyes, otherwise bare. Face much hollowed, not long, rather wide, facial ridges bristly nearly half the way up from the oral margin, the decussate vibrissæ being inserted in the midst of these, at a constriction of the facial ridges, and considerably removed from the oral margin; cheeks bare on forward portion, except for terminal bristles of row on sides of face, wide, nearly one-half the eye-height, very widely replaced beneath the eyes by the hairy occipital area. Antennæ much shorter than the face; first joint very short, second about twice as long, or a little longer; third joint about twice as long as second, considerably widened and convex behind; arista thickened for half its length, minutely pubescent, distinctly 3-jointed, the second joint not elongate. Proboscis fleshy, about as long as height of head, labella well developed; palpi moderately large, club-shaped, very considerably thickened at tip. Apical pair of scutellar macrochætæ strongly decussate, reaching about as far as to the base of third abdominal segment; a small discal pair in front of them, and two strong lateral pairs. Abdomen broad ovate, flattened, first segment hardly shortened; macrochætæ only marginal, on segments one to four. Legs rather long; claws and pulvilli considerably elongate. Wings longer than abdomen, rather broad, with small costal spine, third vein spined a short distance at base; apical cell ending a little before tip of wing, open; fourth vein bent at an angle, without stump, but with a slight wrinkle at the bend; hind cross-vein curved, well approximated to bend of fourth vein. Type, *L. sarcophagina* n. sp.

The wide cheeks of this genus exhibit, posteriorly, a peculiarly complete invasion by the occipital area, which almost entirely replaces the original genal surface below the eyes.

* Λάκκος (a hollow) + πρόσωπον (face).

Laccoprosopa sarcophagina n. sp. ♂ (?).—Black and cinereous. *Eyes* brown; front, face and cheeks cinereous, blackish in some lights, with a silvery lustre in others; frontal vitta dark brown or blackish, averaging one-third the frontal width, split behind enclosing the ocelli; antennæ dark brown, second joint lighter, very bristly, third joint blackish; arista very dark brown or blackish, except a section at end of thickened portion, which is yellowish; proboscis blackish, light brown toward tip; palpi reddish brown, blackish toward tip, black bristly; occiput cinereous, black bristly, particularly so on the genal portion below the eyes, where the bristles are longest, orbital margins with a fringe of bristles. *Thorax* bluish black, black hairy and bristly, with four cinereous vittæ, the median pair more distinct; scutellum, humeri and pleuræ bluish black, more or less shaded with cinereous. *Abdomen* blackish, shining, covered with short black bristly hairs, basal portions of segments more or less broadly and interruptedly cinereous pollinose, not showing in some lights, anal segment almost entirely cinereous; first and second segments each with a small, lateral macrochæta, and some macrochæta-like bristles on sides; third segment with a median pair, a lateral pair, and a single macrochæta between the median and lateral pairs, some longer bristles below; fourth segment with a strong lateral pair on each side, and several weaker median bristles. *Legs* black, faintly silvery, black bristly, except tarsi; claws and pulvilli somewhat elongate. *Wings* grayish hyaline, veins brown; tegulæ white, slightly silvery; halteres brownish. Length 7 mm.; of wing 6 mm.

Described from one specimen received from Mr. Chas. Robertson, Carlinville, Ill.

Phorocera edwardsii Willist. Scudd. Butt. N. E. 1921, pl. 89, fig. 25, ♂. —Black and cinereous. Head, thorax and abdomen nearly same width. *Eyes* light brown, thickly pubescent; front about one-third the width of head, prominent, golden or brassy pollinose on the sides, with some fine hairs outside the frontal bristles; frontal vitta very dark brown, blackish, about one-third width of front, widening behind, where it splits on each side of the ocelli; ocellar area with two pairs of bristles and a tuft of black hair, the front pair of bristles strong, directed forward and outward; a very strong bristle at each vertical angle directed backward, two nearly as strong exactly in front and similarly directed, the three on each side being in a straight line and equidistant from each other; no orbital bristles; the other frontal bristles weaker, directed inward, decussate to base of antennæ, extending downward on sides of face to below the base of third antennal joint (a little below middle of eyes); sides of face otherwise bare, silvery white, moderately wide; face receding, epistoma prominent; facial depression rather deep, wide, silvery white; facial ridges strongly ciliate nearly to base of third antennal joint, beyond the point to which the frontal bristles descend; cheek space rather wide, silvery, black hairy below, with some black bristles on lower and front margins; vibrissæ strong, decussate, inserted considerably above the oral margin; antennæ not quite as long as the face, blackish, second joint reddish yellow, black bristly before; first joint short, second but little longer, third about four times the length of second, of moderate and equal breadth; arista blackish, thickened for more than half its length, microscopically very short pubescent, distinctly 3-jointed, the second joint not elongate; proboscis hardly or about as long as the height of head, moderately stout, brown or blackish, labella developed; palpi yellow, curved, somewhat

thickened on distal two-thirds, black bristly with some longer bristles on under surface; occiput cinereous, densely gray hairy, with a fringe of black hairs on orbital margins, very long hairs alternating with very short ones. *Thorax* silvery-cinereous, hairy and bristly, with four more or less distinct, rather narrow, black vittæ; scutellum a little blackish at base, broadly tipped with tawny brown, with a rather small, decussate apical pair of macrochætæ; just outside these a strong pair reaching to base or nearly to middle of third abdominal segment; two lateral macrochætæ on each side; humeri and pleuræ silvery-cinereous. *Abdomen* rather oval, covered with short, thick, black bristles, first segment somewhat shortened; color black, bases of all but first segment broadly silvery, fully covering the basal half; sides of second segment more or less reddish; first segment with a median marginal pair of macrochætæ; second with a median marginal pair, and a lateral marginal one; third with about ten marginal macrochætæ, six of these being on the upper side; anal segment well armed with discal and marginal macrochætæ. *Legs* black, femora silvery, tibiæ slightly so, femora bristly, tibiæ more strongly so; claws and pulvilli quite elongate. *Wings* a little longer than abdomen, not wide, grayish hyaline, very slightly tawny toward base, with costal spine, third vein spined at base; apical cell ending well before the tip of wing, open; fourth vein bent at an angle, with a well defined wrinkle at its bend; hind cross-vein oblique, somewhat crooked, nearer to the bend of fourth vein; tegulæ nearly white, halteres brownish. Length 6—9 mm.; of wing $4\frac{1}{2}$ — $6\frac{3}{8}$ mm.

I believe that *P. appendiculata* v. d. Wulp is the same as this species. I refer four ♂ specimens here; one from So. Florida and three from So. Illinois (Robertson). All four, however, show a more or less faint rufous tinge on the sides of the second abdominal segment.

***Acroglossa hesperidarum* Willist. Scudd. Butt. N. E. 1917.**

I have one specimen of this interesting genus and species from Kansas. It agrees perfectly in every particular with Dr. Williston's descriptions.

***Frontina acroglossoides* n. sp. ♂ (?)**.—Blackish, cinereous. Head, thorax and abdomen broad, of equal width. *Eyes* light brown, bare; front one-third width of head at vertex, wider before, blackish, cinereous on forward portions; frontal vitta brown, rather wide, cleft behind on each side of the ocelli; frontal bristles descending but little below base of antennæ, the rows widely divergent below; a pair of posteriorly directed bristles at each vertical angle, the outer smaller one also directed outward; next frontal bristle directed posteriorly, rest directed inward, slightly decussate; two orbital bristles; ocellar area clothed with black hairs, with two pairs of bristles, the forward pair longer, directed forward and outward; sides of face and front clothed with fine hairs; sides of face and upper part of cheeks golden pollinose, sides of face wide; cheeks one-third eye-high, silvery and black hairy below, with a row of bristles on lower borders; face receding, silvery-white, epistoma somewhat prominent, facial ridges with a row of bristles extending nearly to base of third antennal joint; vibrissæ decussate, inserted well above the oral margin; antennæ shorter than face, first joint short, dark brown; second joint considerably longer, light

brown, black bristly before; third joint blackish, less than three times as long as second, rather narrow; arista brown, darker at base and tip, microscopically pubescent, moderately thickened most of its length, distinctly 3-jointed, second joint elongate, sometimes almost geniculate; proboscis fleshy, shorter than height of head, black, labella brownish, well developed; palpi well developed, considerably thickened, curved up at tip, brownish yellow, black hairy with several black bristles on under surface before tip; occiput cinereous, gray hairy, with fringe of black bristles on orbital margins. *Thorax* above silvery-cinereous, hairy and bristly, with three blackish vittæ, indistinct in some lights, but distinct when viewed from behind, scutellum silvery-cinereous, broadly reddish yellow on apical portion, with three pairs of strong macrochætæ, a weaker apical pair between the hind pair; humeri and pleuræ silvery-cinereous. *Abdomen* blackish, silvery-cinereous, covered with short black bristles, broadly oval, first segment somewhat shortened, anal segment orange-colored; segments one to three with a slight median depression, giving the appearance, in a side light, of a median vitta; first segment with a lateral marginal macrochætæ, and a median marginal pair; second with a median discal and marginal pair, and a lateral marginal one; third segment with a median discal pair, and eight marginal ones above, with about three on each side below on the venter; fourth segment with four marginal and a row of weaker discal macrochætæ; venter silvery, except the orange anal segment, with long bristly hairs. *Legs* blackish or brownish, silvery, except the tarsi, hairy; femora, and especially the tibiæ, with black bristles, stouter on the tibiæ; claws and pulvilli but little elongated. *Wings* longer than abdomen, grayish hyaline, veins brownish, with very small costal spine, third vein slightly spiny at base; apical cell open, terminating considerably before tip of wing; fourth vein bent nearly at a right angle, not sharply bent, but rounded, without stump or wrinkle, distal two-thirds of apical cross-vein curved backward; hind cross-vein long, oblique, a little crooked, nearer the bend of the fourth vein; tegulæ nearly white; halteres fuscous, yellowish at base. Length 10 mm.; of wing 8.5 mm.

Described from one specimen received from Mr. Chas. Robertson, Carlinville, Ill. This species may be looked upon as connecting the two genera, *Frontina* and *Acroglossa*. It has the arista nearly as in *Acroglossa*, sometimes subgeniculate, while it possesses the proboscis of *Frontina*. In general appearance it greatly resembles *Acroglossa hesperidarum*. The whole fourth abdominal segment, however, is reddish or orange. It further differs from *A. hesperidarum* as follows: the cheeks do not have bristles, but they are clothed with fine bristly hairs. The sides of face are golden, and the first abdominal segment bears a median pair of macrochætæ on its hind margin, as well as the second segment, though they are weaker. This specimen, a ♂ (?), also has the third antennal joint scarcely three times the length of the second.

Siphona illinoiensis n. sp. ♀.—Deep golden, cinereous. *Eyes* dark brown, bare, nearly reaching the oral margin below; front and face nearly equal in width, occupying one-third width of head; front of a brassy-golden color.

frontal vitta but little darker, occupying one-half width of front, cleft before and behind; frontal bristles descending only to base of third antennal joint; a pair at each vertical angle, the inner longer one directed backward, the outer shorter one directed outward and backward; next frontal bristle directed outward and backward, next backward, rest inward, but not decussate; two orbital bristles on each side; two pairs of ocellar bristles, posterior pair shorter, erect, directed a little backward and outward, anterior pair long, appressed, directed forward and strongly outward; face and cheeks silvery-white; sides of face extremely narrow, bare; cheeks rather narrow, restricted posteriorly beneath the eyes, bare with bristles on lower border; face nearly perpendicular, epistoma rather prominent; vibrissæ inserted a little above the oral margin, not decussate, a short bristle above and a longer one below them; antennæ quite as long as the face, first two joints light yellowish brown, second joint a little longer than first, very short bristly before; third joint blackish, over three times as long as second, widened, convex behind, straight before, posterior apical corner rounded; arista brownish, thickened more than half its length, minutely pubescent, distinctly 3-jointed, second joint strongly elongate, sometimes geniculate; proboscis very long, bristle-like, twice geniculate, apical portion folded back, light brownish yellow, blackish at distal geniculation, labella not developed; palpi rather slender, thickened at tip, yellow, black-hairy, with two black bristles on under surface before tip; occiput golden-cinereous, black-hairy, with a fringe of bristly hairs on orbital margins. *Thorax* and scutellum golden-cinereous, clothed with black bristly hairs, stouter posteriorly; thorax with a median pair of faint cinereous vittæ, becoming obsolete at suture; humeri and pleuræ concolorous; apical pair of scutellar macrochætæ decussate, reaching middle of second abdominal segment, two lateral macrochætæ on each side. *Abdomen* oblong-oval, first joint scarcely shortened; color deep golden, with an irregular, median, dark cinereous vitta, widening posteriorly on segments two and three, nearly obsolete on segment four, all segments covered with short, black, appressed hairs; macrochætæ only marginal; first segment with one lateral macrochæta; second with a median pair and one lateral one (frequently another macrochæta-like bristle, giving the appearance of a lateral pair); third with six macrochætæ, a pair on each side the median pair; anal with four macrochætæ above; venter golden. *Legs* light reddish golden, except tarsi which are blackish; black-hairy, tibiæ bristly, femora slightly so; claws and pulvilli short. *Wings* grayish hyaline, slightly longer than abdomen, with costal spine, third vein spined as far as small cross-vein; apical cell ending at tip of wing, narrowly open; fourth vein bent in a gentle curve, without stump or wrinkle; hind cross-vein slightly nearer to the small cross-vein than to bend, or about in the middle; tegulæ nearly white, halteres yellowish. Length 4 mm.; of wing 3 mm.

Described from two specimens received from Mr. Chas. Robertson, Carlinville, Ill.

PHASIOCLISTA* n. gen.

Differs from Schiner's description of *Clista* only as follows: Metallic dark green species. Eyes bare; face a little receding; sides of face very wide, fully as wide as facial depression, covered with

* *Phasia* + *Clista*.

rows of hairs, and with a somewhat indistinct oblique suture extending from lower border of eye to base of antennæ; cheeks nearly one-half the eye-height, mostly bare; palpi quite well developed. Macrochætæ only marginal. Wings without costal spine; apical cell closed in border or narrowly open, ending just before tip of wing; hind cross-vein a little nearer the bend of fourth vein, or sometimes nearly in middle between the bend and the small cross-vein. Type, *P. metallica* n. sp.

This genus differs from *Phasiopteryx* Br. and Bgst. by the wide and hairy sides of face; the very wide cheeks; the shorter third antennal joint, which is but little longer than the second; only marginal macrochætæ; costal margin of wing not produced between second and third veins in ♂; and apical cell not open. It differs from *Ennyomma* Twms. almost wholly in the absolutely bare eyes.

Phasioclista metallica n. sp. ♂.—Shining, metallic dark green. Thorax and abdomen nearly equal in width, head much wider. Eyes rather large, brown, bare, closely approximated in front of ocelli, making the front very narrow on its posterior third or more, from whence it widens abruptly, the face being very wide, and, with the front, triangular; front a little prominent before, blackish on sides; some very weak frontal bristles directed inward, somewhat decussate, weakest posteriorly, not descending below base of antennæ; vertical and ocellar bristles very short, the forward ocellar pair the stoutest of all the bristles on the front and directed strongly forward, those at vertical angles directed inward; no orbital bristles; frontal vitta brown, very narrow, almost obsolete posteriorly, wider in front, longitudinally canaliculate; sides of face wide, reddish brown, shading above to blackish, silvery pollinose, clothed with rows of hairs; cheeks very wide, nearly one-half height of eyes, reddish brown, sometimes shading to blackish behind, mostly bare, but with a few hairs on upper portion, with bristles on lower margin; facial depression one-third width of face, reddish brown; facial ridges bare above the vibrissæ, which are decussate and inserted very much above the oral margin at a constriction of the facial ridges; antennæ inserted about middle of head, very short, reddish brown, third joint darker; first joint very short, second a little elongate and somewhat bristly, third about once and a half as long as the second; arista blackish, sometimes partly brownish, thickened only at base, bulbous, indistinctly jointed, microscopically pubescent; proboscis black, partly brownish, not as long as height of head, labella developed; palpi brown, or nearly black, apical two-thirds somewhat thickened, bristly; occiput black, a fringe of black hairs on orbital margins. Thorax, scutellum and abdomen shining, metallic, greenish black; thorax and scutellum hairy and bristly, abdomen covered with short black appressed bristles; the decussate apical pair of macrochætæ the longest on the scutellum, two lateral macrochætæ on each side; the abdomen much rounded in outline, vaulted, first segment not shortened; first and second segments without macrochætæ, third segment with about eight or ten marginal, anal segment with six or eight marginal. Legs black, femora and tibiæ somewhat bristly; claws and pulvilli elongate. Wings longer than the abdomen, narrowed toward tip, grayish

hyaline, deeply tawny on basal and costal portions, without costal spine, third vein not spined at base; apical cell closed in border, slightly before tip of wing; fourth vein rounded at bend, without stump or wrinkle; hind cross-vein not straight, a little nearer the bend of the fourth vein; tegulæ deep tawny; halteres fuscous, tawny at base. Length 5.5—6 mm.; of wing 4.5—5 mm.

Described from two ♂ specimens received from Mr. Chas. Robertson. Carlinville, Ill., and So. Florida.

ENNYOMMA* n. gen.

Metallic dark green or blackish species, differing from *Clista* and *Phasioclista* chiefly in the hairy eyes. Head slightly wider than thorax and abdomen. Eyes more or less thickly pubescent, closely approximated in front of ocelli in ♂; front much widened before, somewhat prominent, frontal bristles weak, mostly on forward portions: no orbital bristles; sides of face as wide as facial depression, with rows of hairs; face hardly receding; vibrissæ situated well above oral margin at a contraction of the facial ridges, the latter bare. Sides of face and cheeks divided by a more or less distinct suture extending obliquely from lower border of eyes to base of antennæ. Cheeks nearly as wide as half the eye-height, more or less hairy. Antennæ half the length of the face, third joint a little longer than second; arista very short pubescent, 3-jointed, second joint not elongate, third joint thickened at base. Proboscis short, fleshy, labella and palpi well developed, the latter nearly cylindrical, somewhat thickened toward tip, bristly. Thorax and scutellum with macrochætæ. Abdomen as wide as thorax, not elongate, rounded, first segment hardly shortened, macrochætæ only marginal. Legs bristly; claws and pulvilli of ♂ elongate. Wings longer than abdomen, narrowed toward tip, without or with a very small costal spine; apical cell open or closed in border immediately before tip of wing; curvature of fourth vein rounded, without stump or wrinkle; hind cross-vein sinuate, nearer to bend of fourth vein, or in the middle between the bend and the small cross-vein; ♀ unknown. Type, *E. clistoides* n. sp.

Ennyomma clistoides n. sp. ♂.—Differs from *Phasioclista metallica* as follows: *Eyes* thickly pubescent; second antennal joint bright rufous, third joint but little longer, dark brown; arista distinctly 3-jointed, not so bulbous at base; cheeks very wide; sides of face hairy, obliquely cut out below; palpi blackish. A short pair of median marginal macrochætæ on second abdominal segment, a bristly hair at sides; third segment with about ten marginal macrochætæ, last segment with about eight above. *Tibiæ* quite bristly. *Apical cell*

* "Ἐννῶμι (to clothe) + ὄμμα (eye).

well opened just before tip of wing; hind cross-vein strongly sinuate, nearer bend of fourth vein; wings same shape, deeply tawny yellow on costal and basal portions; tegulae tawny, partly whitish. Length 8 mm.; of wing 6 mm.

Described from one specimen from Mr. Chas. Robertson, Carlinville, Ill.

Genus *Myiomintho* Br. and Bgst., Zweifl. kais. Mus. W. iv, 138.—This genus seems to be very near *Anisia* v. d. Wulp. It is hardly possible to separate it from the description alone.

***Clytia flava* n. sp.** ♂.—Flavous yellow, thorax brassy. Head wider than thorax and abdomen. Eyes bare, brownish, not large; front from vertex not quite half way to base of antennæ about one-fifth the width of head, widening from that point forward, at base of antennæ about three-sevenths width of head; sides of face and cheeks bright golden yellow, front duller golden; frontal vitta and antennæ, including arista, more deeply colored, flavous; frontal vitta moderately wide, with a row of weak bristles on each side extending only to base of antennæ, decussate in front; ocellar area shining black, with usual two pairs of bristles, a shorter inwardly directed vertical bristle on each side of the hind pair; some hairs outside the frontal bristles; no orbital bristles; sides of face moderately narrow, bare; cheeks wide, one-half the eye-height, bare above, hairy and silvery on whole lower portion where invaded by occipital area, with a row of bristles on lower and front borders; vibrissæ not decussate, inserted well above the oral margin at a constriction of the facial ridges; facial depression rather wide, golden with a silvery sheen, facial ridges with a few hairs above vibrissæ; first antennal joint short, a little bristly; second considerably longer, bristly; third joint hardly more than once and a half as long as second, slightly widened, rounded at apex; arista thickened a little on basal third, microscopically almost imperceptibly pubescent, distinctly 3-jointed, second joint quite elongate; proboscis not very stout, hardly as long as height of head, brown, labella flavous, well developed; palpi small, pale yellowish or whitish, sub-filiform, slightly thickened except at base, black bristly on thickened portions; occiput cinereous on upper half, pale silvery yellowish on lower half, gray hairy, with fringe of black hairs on orbital margins. *Thorax* and scutellum brassy-cinereous; humeri yellowish, pleuræ cinereous; scutellum more or less broadly yellowish on apical portion, with a decussate or not decussate apical pair of macrochaetae and a single lateral one; thorax hairy and somewhat bristly, mesonotum with two thread-like dark vittæ becoming obsolete at transverse suture, and outside them a less distinct one extending farther posteriorly but interrupted at the suture. *Abdomen* oblong, slightly vaulted, first segment not shortened; whole abdomen clothed with short black hairs, deep yellow or more fulvous posteriorly, a more or less irregularly triangular, posterior, median black spot on second and third segments; first two segments each with a median marginal pair of macrochaetae, and a lateral marginal one; third segment with about ten marginal, anal segment with eight or more marginal macrochaetae; venter yellow, black bristly. *Legs* deep tawny yellow, black hairy and bristly, especially hind tibiae, tarsi darker; claws and pulvilli elongate. *Wings* longer than abdomen, moderately narrow, nearly hyaline, pale flavous on costo-basal portion, without costal spine, third vein usually slightly spined at base; apical cell narrowly

open or almost closed in border just at or very slightly before tip of wing; fourth vein curved at bend, without stump or wrinkle; hind cross-vein curved, more or less sinuate, nearer bend of fourth vein; tegulæ whitish, tinged with pale yellowish; halteres yellowish. Length 5.5 mm.; of wing 5 mm.

Described from two ♂ specimens from Mr. Chas. Robertson, Carlinville, Ill. This species approaches very closely the genus *Cenosoma* v. d. Wulp, but is, I think, better referred to *Olytia*.

ATROPHOPA* n. gen.

Form rather narrow; head and thorax of equal width, abdomen at widest somewhat narrower. Eyes rather thinly, short hairy, apparently more thickly so on lower portions. Front at vertex about one-third the width of head, of ♂ slightly narrower; face of ♀ three-fifths the width of head, of ♂ one-half the width of head; frontal bristles descending in a row to the lower border of the eyes, almost to the vibrissæ; a long bristle at each vertical angle directed backward and a little inward, next frontal bristle directed upward and backward, the following ones directed forward and downward. Both sexes (?) with two orbital bristles on each side. Sides of face moderately wide, widening towards base of antennæ, with some minute short bristly hairs on anterior portion extending upward among the bristles on the front; cheeks wide, fully one-half the height of the eye, very short antero-posteriorly, with a few very fine hairs, and some bristles on lower and lateral borders; vibrissæ decussate, inserted a little above the oral margin; face strongly receding; facial ridges bare, only one or two bristles above vibrissæ. Antennæ shorter than the face; first joint short, second a little longer, third more than four times the length of the second, very narrow, linear, the posterior apical corner rounded; arista distinctly 3-jointed, thickened more than half its length, clothed with short and delicate pubescence, second joint short, not much longer than wide. Proboscis short, not longer than height of head, more or less fleshy, labella developed; palpi filiform, hardly thickened at tip. Scutellum with an apical decussate pair of macrochætæ, and a longer lateral one directed outward and extending to about the middle of the second abdominal segment. Abdomen ovo-conical, the first segment a little narrowed and somewhat abbreviated; macrochætæ only marginal, except on last segment. Legs rather elongate; anterior claws and pulvilli exceedingly small, minute, those of middle and hind feet well developed and distinct, but short and small. Wings with a

* *Ατροφος* (atrophied) + *πούς* (foot).

pair of costal spines ; apical cell closed in the margin, or very short petiolate, ending only a little before the tip of the wing ; posterior cross-vein nearer the bend of the fourth longitudinal, which is angular and without stump or wrinkle ; third vein spined on proximal one-fourth of its length. Type, *A. singularis* n. sp.

This genus seems to approach *Eggeria* somewhat. It differs very markedly, however. The arista is clothed with very short pubescence ; the sides of the face are not broad ; the facial ridges are bare, while the frontal bristles extend down in a row almost to the vibrissæ ; the front is not prominent, and the face is not so receding as in *Eggeria* ; the eyes are only thinly and short hairy, chiefly on their lower portions ; the antennæ are shorter than the face, the palpi are filiform, and the abdomen is sub-conical.

Atrophopoda singularis n. sp. ♂.—Black, silvery and cinereous. Eyes reddish brown, short and thinly pubescent, almost entirely on lower portion ; face and cheeks silvery pollinose ; front broadly cinereous on each side of the frontal vitta, which is black and split behind, a prong running to each bristle on the vertical angle, thus enclosing the ocellar area ; two pairs of ocellar bristles, a small pair at vertex almost straight, but inclined slightly forward and outward, and a somewhat longer curved pair in front inclined outward and strongly forward ; some weak bristly hairs between the bristles ; first two antennal joints blackish, second joint slightly tinged with flavous, bristly with two longer bristles on the front border below ; third joint yellowish at base, remainder blackish, somewhat thinly but evenly covered with a very short, delicate pubescence ; arista black ; proboscis dark brown ; palpi light yellowish, with some black bristles, two longer ones on the underside near the tip ; occiput cinereous above, silvery on the sides and below, clothed with white hairs, with a fringe of black bristles on the orbital margins. *Thorax* and scutellum silvery cinereous above, clothed with a few very short scattered bristly hairs and stout posteriorly inclined bristles, with two broad heavy blackish or brownish black vittæ terminating abruptly at the scutellar suture ; humeri and pleuræ silvery, some bristles below humeri inclined outward, forward and upward ; some on posterior portion of pleuræ inclined outward and backward, except two lowest, the posterior one of which is inclined upward, outward and backward, and the anterior shorter one upward, outward and forward. *Abdomen* shining black, covered with short, black, appressed bristles ; bases of second to fourth segments silvery ; first segment with a lateral marginal macrochaeta ; second with a lateral marginal one and a median pair ; third with six marginal above, continued by others on the underside growing smaller toward the middle of the venter ; fourth segment with a median discal pair, continued by discal bristles on the venter, a lateral sub-discal one on each side, and four marginal above with several below ; venter largely silvery. *Legs* black ; coxæ silvery and bearing some black bristles ; femora slightly cinereous or silvery, covered with short black hairs and a few black bristles ; front tibiæ with an anterior apical pair of short bristles, and usually a very short bristle or two toward the middle of the anterior surface ; the other tibiæ with several variously disposed stouter bristles ; anterior claws

and pulvilli atrophied, minute, the others short and small. *Wings* grayish hyaline, costal cells, most of basal cells, all the wing veins and their borders light honey yellow, or the veins somewhat darker; tegulæ whitish, border nearly concolorous or slightly yellowish; halteres fuscous, or somewhat brownish.

♀.—Differs by the head being wider below, the face much wider, and the wings entirely grayish hyaline, the veins only being yellowish. The eyes also are distinctly pubescent on the upper, especially the more forward, portions. The claws and pulvilli of the middle and posterior feet are very slightly longer, but can hardly indicate this as the ♂. Length 7 mm. or slightly more; of wing 5—5.5 mm.

Described from two specimens received from Mr. Chas. Robertson, Carlinville, Ill. This species, from the elongate legs, has quite a Dexiid aspect, but is evidently properly placed in the Tachinidæ, for the reason that the frontal bristles descend nearly to the vibrissæ, and the arista is only short pubescent.

EPIGRIMYIA* n. gen.

Belongs in the Phytinæ, not far from *Drepanoglossa*, from which it differs by the perpendicular face and prominent epistoma, also by the short terminal tarsal joints. Head, thorax and abdomen differing but little in width, the head widest. Eyes bare, extending as low as the oral margin. Front about one-third width of head; a pair of bristles at each vertical angle, the outer small one directed outward and somewhat backward, the long inner one straight up but curved backward at tip; the next frontal bristle directed backward, the next forward, the rest inward meeting each other; no orbital bristles (in ♂). Frontal bristles not descending below base of antennæ, or but slightly; sides of face very narrow, bare; face slightly more narrowed than front, perpendicular, oral margin prominent, facial ridges bare; cheeks narrow, bare, with several long bristles below terminated by the vibrissæ, which are not decussate, and are inserted on the oral margin. Antennæ a little shorter than the face, first joint short, second considerably longer; third joint about three times as long as second, hardly widened, nearly straight on front border, convex behind; arista thickened on its proximal third, clothed with some extremely fine, hardly perceptible pubescence, apparently but 2-jointed, the basal joint very short. Proboscis elongate, bristle-like, nearly twice as long as height of head, once geniculate, the distal portion curved or bowed, labella not developed; palpi sub-filiform, a little thickened at tip. Scutellum with four lateral macrochætæ, the apical pair atrophied, very small; none of them

* Ἐπίγρυπος (curved, of a beak) + μύια (a fly).

decussate. Abdomen elongate oval, vaulted, first segment not abbreviated, rather elongated; macrochætæ of abdomen all marginal, on segments one to four. Legs rather stout and somewhat elongate, tarsal joints very short in proportion, except metatarsi, which are strongly elongate. Wings broad, rather short, with costal spine, third vein with a few bristles at base; apical cell ending at tip of wing, closed in the margin; curvature of fourth vein rounded, with out stump or wrinkle; posterior cross-vein perfectly straight, meeting fourth vein at a right angle, and nearer to the bow of the latter than to the small cross-vein; ♀ unknown. Type, *E. polita* n. sp.

This genus is near *Beskia*, but the proboscis is curved backward at tip, instead of forward, and the third joint of antennæ is not widened and truncate at apex.

Epigrammia polita n. sp. ♂.—Black, wings fuscous. Eyes dark brown; frontal vitta wide, velvety black, pronged on each side of ocelli, the front on sides silvery; face and cheeks silvery white; antennæ black, first two joints with some black bristles, arista black; proboscis and palpi black; occiput cinereous with some short black bristles, and a fringe of same on orbital margins. Thorax and scutellum black, shining, faintly cinereous pollinose, covered with short hairs and posteriorly directed bristles; humeri and pleuræ silvery, with the usual bristles. Abdomen black, shining, covered with short, black, appressed hairs, bases of segments narrowly, faintly silvery in some lights; first, second and third segments each with a lateral macrochæta and a median pair; fourth segment with six macrochætæ; genitalia protruded. Legs black, hairy; coxæ and femora with bristles, tibiæ with some short macrochætæ, except front pair; claws and pulvilli slightly elongate, nearly as long as last tarsal joint, front ones longest. Wings fuscous, darkest at base and on costa; tegulæ white, borders concolorous; halteres fuscous. Length 4 mm.; of wing 3.5 mm.

Described from one specimen, collected June 1st on flowers of a daisy. Dixie Landing, Va. (District of Columbia.)

Celatoria crawii Coquillett, Ins. Life, ii, 235–36.

This new genus and species is described from California, and was bred from adults of *Diabrotica soror*. It is described as having five abdominal segments, which would properly exclude it from the Tachinidæ sens. str., and it would fall in the Phaniidæ by its other characters. The first or basal segment is, however, as long as the second, and the so-called fifth segment is probably not a segment properly speaking, but merely the more or less concealed caudal joint or hypopygium to be found in many Tachinidæ s. str. In the Ocypteridæ and Phaniidæ, as well as in the Phasiidæ, the first segment is much shorter than the second, and it is at the base of the abdomen that the additional segment must be looked for.

DREPANOGLOSSA* n. gen.

Belongs in the Phytinæ, perhaps in the neighborhood of *Myothyria* v. d. Wulp. The arista, however, is distinctly 3-jointed, while the peculiar proboscis will at once distinguish it from other genera. Body rather narrow; thorax and abdomen about equal in width, the head very slightly wider. Eyes bare; front and face rather wide, from one-third to three-fifths the width of the head; distance between the eyes at vertex and cheeks the same. Sides of face bare, very narrow below, gradually widening to base of antennæ; cheeks bare, rather narrow, with some bristles on the lower and forward margin; the nearly decussate vibrissæ inserted on the oral margin. Frontal bristles descending but little below the base of antennæ, about to base of third joint; a pair of unequal length at each vertical angle, the shorter outer one directed outward, the other directed backward; next two frontal bristles on each side directed backward, remainder directed inward; two orbital bristles on each side directed forward. Face receding, epistoma somewhat prominent; facial ridges bare. Antennæ a little shorter than the face, first joint very short, second not elongate, third a little more than three times the length of second and somewhat widened; arista distinctly 3-jointed, thickened more than half its length, very short and fine pubescent, second joint not elongate. Proboscis quite widely extended, about three times as long as height of head, bristle-like, once geniculate, the distal portion sometimes very strongly curved or bowed, usually considerably bowed, but sometimes almost straight, labella somewhat developed; palpi filiform, hardly thickened toward tip. An apical and lateral pair of scutellar macrochætæ, the former longer, not decussate, and reaching a little more than the base of second abdominal segment. Abdomen elongate oval, sometimes shorter oval, first segment not abbreviated; macrochætæ all marginal on segments two to four. Legs moderately long, tarsi rather elongate and delicate. Wings broad, longer than the abdomen, with costal spine, third vein spined only at base; apical cell ending very slightly before the tip of the wing, much narrowed on its distal portion, usually closed in the border, but often very narrowly open; posterior cross-vein sinuate, in the middle between the small cross-vein and the bend of the fourth or slightly nearer the bend, which is rounded and without stump or wrinkle. Type, *D. lucens* n. sp.

* Δρεπάνη (sickle) + γλωσσα (tongue).

This genus is readily distinguished from *Siphona*, to which it bears a slight resemblance, by the proboscis not being twice geniculate, and the arista with the second joint not elongate. It is apparently very near *Spiroglossa* Dol. of the East Indies.

Drepanoglossa lucens n. sp. ♂ ♀.—Pale tawny, abdomen translucent, thorax cinereous. *Eyes* reddish brown; front, face and cheeks pure silvery white; frontal vitta broad behind, entirely covering the ocellar area, narrowed in front to width of base of antennæ, occupying one-half the width of the front in the middle, light tawny yellow in color; two pairs of ocellar bristles, the hind pair shorter, inclined slightly outward, the front pair inclined forward and outward; antennæ same color as frontal vitta, light tawny yellow, the arista and distal half or so of third joint nearly black; first two antennal joints black bristly, third very minutely pubescent; proboscis usually much bowed, basal portion very light, slightly yellowish, distal half or more blackish; palpi light yellowish; occiput cinereous above, silvery white below, gray hairy, with a fringe of alternately short and long black hairs on the border from the vertical angle to the oral margin. *Thorax* and scutellum above light cinereous, tinged with tawny yellow behind and on scutellum, covered with short black hairs and longer black bristles directed backward; a median posteriorly divergent pair of grayish brown vittæ becoming obsolete near transverse suture; humeri and pleuræ silvery; two bristles below humeri directed outward, forward and upward; a vertical row of bristles directed posteriorly in front of base of wings, three bristles on next sclerite below, front pair directed outward and forward, and the hind one outward, backward and upward. *Abdomen* above very light on basal portion, becoming more or less brownish yellow toward the extremity, covered with short, appressed, black bristles; segments two, three and four darker on hind margin, a blackish median line extending from base to anal extremity; first segment with some longer bristles on the sides, but no macrochætæ; second with a lateral one and a median pair; third with six above and some shorter ones below; fourth segment with six macrochætæ; venter colorous, anus dark. *Legs* very light yellowish, finely black hairy; coxæ with black bristles on forward surface directed posteriorly; femora with some weak black bristles, the longest being on underside of hind pair; tibiæ with some shorter bristles, tarsi thickly covered with very short black hairs; claws and pulvilli a little elongate, about half as long as last tarsal joint. *Wings* grayish hyaline, wing veins light tawny; tegulæ whitish, shining, margin narrowly opaque, white; halteres white. Length 4—5.5 mm.; of wing 3.5 to nearly 5 mm.

Described from thirty-three specimens taken on windows of Agricultural College building, June 29th to July 8th, Las Cruces, N. Mex. Some specimens differ in the frontal vitta being of equal width, wider than base of antennæ in front, occupying throughout one-half or more of the frontal width. The proboscis is often not so much bowed, sometimes nearly straight. The tarsi of some are shorter, particularly the distal joints, the claws and pulvilli being apparently a little less elongate. Yet these differences by no means constantly accompany each other; I am, therefore, uncertain of the

sexes. The smallest individuals have the front and face only one-third the width of the head, and, were it not for their short claws and pulvilli, I should consider them to be the males. I believe, however, that the males are the larger ones with longer claws, wider front, and more strongly bowed proboscis.

CERATOMYIELLA* n. gen.

Belongs in the *Phytoinæ*, in the section with bare eyes and petiolate apical cell. Of small size. Head about the width of thorax, abdomen much narrower. Eyes bare, reaching little more than two-thirds way to oral margin. Front occupying one-third the width of head at vertex, wider before, rather prominent; frontal bristles descending on sides of face to the cheeks, in a single row; some short bristly hairs outside frontal bristles; a bristle at each vertical angle, and the one next to it, directed backward; next pair directed inward and backward, decussate; next directed inward and forward, decussate; one orbital bristle directed forward; sides of face rather wide at base of antennæ, much narrowed below; face oblique, strongly receding, facial depression much lengthened, rather wide, facial ridges bare; cheeks very short, but high, almost one-half the eye-height, extending considerably upward behind the eyes, bare, except bristles on posterior and lower borders; vibrissæ decussate, inserted a little above the oral margin. Antennæ as long as face; first two joints short, third joint much elongate, widened somewhat and thickened, six or seven times as long as the second; arista thickened for half its length, microscopically pubescent, 3-jointed, second joint not elongate. Proboscis short, fleshy, one-half as long as height of head, labella well developed; palpi slender, club-shaped. Three pairs of macrochætæ on scutellum, the apical pair not decussate; the median pair the longest, reaching to middle of second abdominal segment. Abdomen narrow, elongate, conical, first joint not shortened; macrochætæ marginal on segments one to four, not very stout. Legs of moderate length. Wings reaching a little beyond abdomen, of moderate width, with small costal spine; apical cell ending but little before tip of wing, short petiolate; bend of fourth vein subangular, without stump or wrinkle; posterior cross-vein nearly straight, a little nearer to the bend of the fourth vein than to the small cross-vein. Type, *C. conica* n. sp.

* *Κεφαία* (antenna) + *μύια* (a fly).

This genus agrees in many ways, especially in the characters of the head, with *Hypertrophocera*. But the apical cell ends very little before the wing's tip, and is petiolate; the abdomen is narrow and conical; and the species are of very small size.

Ceratomyiella conica n. sp. ♀ (?).—Small, black. *Eyes* brownish; front and face black, silvery; frontal vitta narrow, rich dark brown, with a narrow prong behind on each side of ocelli; cheeks light reddish brown, forward border silvery; antennæ brownish, first two joints and basal portion of third light brownish yellow, arista brown; proboscis light brownish, palpi pale yellow; occiput black, somewhat cinereous, with a fringe of short black bristles on orbital margins. *Thorax*, scutellum, humeri and pleuræ black, with a slight bluish cast, black hairy and bristly, sparsely silvery pollinose. *Abdomen* black, shining, clothed with short black bristles, bases of segments faintly silvery pollinose; first and second segments each with a median pair of macrochætæ; third and fourth segments each with a single lateral macrochæta and a median pair; some longer bristles on sides of first two segments, which may often resemble macrochætæ. *Legs* brownish, femora orange-yellow, tibiæ tinged with same color; femora and tibiæ with a few bristles; tibiæ blackish, claws and pulvilli slightly elongate. *Wings* grayish hyaline, costal border and extreme base yellowish, veins light; tegulæ whitish, halteres light brownish. Length 4.5 mm.; of wing 3.5 mm.

Described from one specimen received from Mr. Chas. Robertson. Carlinville, Ill.

Leucostoma atra n. sp. ♂.—Black, shining. Head a little wider than thorax. *Eyes* brown, bare, extending nearly as low as the epistoma; front not prominent, gently rounded in profile, from vertex to middle about one-fifth the width of head, nearly twice as wide at base of antennæ, face still wider; face and cheeks silvery white, front silvery shading to darker at vertex; frontal vitta velvet black or brownish black, rather narrow, expanded at each end; frontal bristles descending only to base of antennæ, all equal in strength and height even to the pair at the vertical angles, nearly erect, mostly curved inward and decussate, with some fine hairs outside them; the usual two pairs of ocellar bristles, the front pair curved outward, not forward; no orbital bristles; sides of face narrow, bare, facial depression wide, face nearly straight, epistoma hardly prominent; facial ridges bare, one or two short weak bristles outside the vibrissæ and a little above; vibrissæ decussate, inserted a good distance above the oral margin; cheeks invaded by occipital area under the eyes, which is cinereous and black hairy, with bristles on lower and front margins; antennæ short, reaching a little more than half way to oral margin, brownish, more or less silvery; first joint short, second and third about same length; second joint bristly before, lighter than third, which is blackish toward apex; arista slender, slightly thickened on basal third, microscopically short pubescent, rather indistinctly jointed, brownish, lighter at base; proboscis about as long as height of head, moderately slim, black, with light brown well developed labella; palpi slender, a little thickened at tip, flavous, with some bristles on underside; occiput cinereous, black hairy, with a fringe of black hairs on orbital margins. *Thorax* and scutellum shining black, with a bluish luster, hairy and bristly; scutellum with an apical,

suberect, strongly decussate pair of macrochætæ, and two stronger lateral ones on each side. *Abdomen* entirely shining jet-black, clothed with black bristly hairs, a little narrower than thorax, rather conical, first segment not shortened; macrochætæ weak, only marginal; first two segments each with a median pair and a single lateral macrochætæ; third segment with eight or ten, and anal segment with about six macrochætæ, which can be distinguished from the longer of the bristly hairs. *Legs* blackish, femora with long hairs. middle and hind tibiæ bristly; claws and pulvilli elongate. *Wings* much longer than abdomen, proportionally larger, without costal spine, grayish hyaline, slightly tawny at base and on costal portions, veins mostly tawny: apical cell long petiolate, ending a little before apex of wing; fourth vein bent at an obtuse angle, without stump or wrinkle: hind cross-vein bowed, nearly in middle between small cross-vein and bend of fourth; tegulæ very large, white; halteres light tawny, knob blackish. Length 4 mm.; of wing 3.5 mm.

Described from one specimen from Mr. Charles Robertson. Carlinville, Ill. This species bears a considerable resemblance to a *Hyalomyia*, in the form of the head, antennæ, rather weak frontal bristles, eyes, front, proboscis, palpi, abdomen, elongate tarsal claws and pulvilli, and even in the curved fourth vein. It is to be easily distinguished, however, by the rather weak but distinct macrochætæ of the abdomen; only four abdominal segments; the fourth vein not describing a perfect curve as in *Hyalomyia*, but somewhat angular; and the large tegulæ.

VANDERWULPIA n. gen.

Bears a considerable resemblance to the genus *Atrophopoda*, even agreeing with it in the minute, atrophied anterior claws and pulvilli. Agrees with it also in the form of the head, thorax, abdomen, legs, antennæ, proboscis and palpi. It differs from *Atrophopoda* as follows: Eyes bare; frontal bristles not extending below base of antennæ; arista rather long pubescent, almost plumose on median portion; facial ridges bristly for some distance above vibrissæ; cheeks not so wide. Abdomen strongly conical, except a little narrowed at base, not in the least flattened or vaulted, macrochætæ entirely marginal. Wings without costal spine; apical cell rather long petiolate, ending at a considerable distance before the tip of the wing; fourth vein at bend strong angular, with a distinct stump of a vein; hind cross-vein nearly straight. Type, *V. atrophopodoides* n. sp.

Named in honor of Mr. F. M. van der Wulp, of The Hague, Netherlands, who has done much valuable work on the Tachinidæ of the Central American and Mexican faunas.

Vanderwulpia atrophopodoides n. sp. ♂ (?).—Black and silvery, abdomen red. *Eyes* nearly black; front and face silvery white, blackish in some

lights; cheeks silvery white posteriorly, more or less blackish anteriorly; frontal vitta, antennæ and arista black; proboscis mostly black, labella brown, hairy; palpi light slate color; occiput cinereous, gray hairy, with fringe of black bristles on orbital margins. *Thorax* and scutellum bristly, sparsely hairy, silvery white, with broad, median, uninterrupted black vitta reaching to apex of scutellum; humeri two and pleuræ silvery. *Abdomen* deep orange-red, bases of second to fourth segments rather narrowly silvery white pollinose, the whole covered with short, appressed black bristles; first and second segments with only a median pair of macrochætæ; third and fourth segments each with eight erect macrochætæ, and some shorter macrochæta-like bristles on the concolorous venter. *Legs* black, black hairy, silvery and bristly except tarsi and front tibiæ; claws and pulvilli not elongate. *Wings* obscure grayish hyaline, costal border and borders of veins fuscous; tegulæ pure white, halteres fuscous or brownish. Length 7.5–8.5 mm.; of wing 6–6.5 mm.

Described from two specimens taken July 20th. Las Cruces, N. Mex. This is a beautiful and striking species. Although the frontal bristles do not descend on the face and the arista is short feathered, this species seems to claim close relationship with *Atrophopoda*. The front claws and pulvilli in both are minute, and the general facies is strikingly the same. It is possible that a greater amount of material in this sub-group may demonstrate the affinities of one or both genera with the Dexiidæ.

Genus *Arthrochæta* Br. and Bgst., Zweifl. kais. Mus. W. iv, 134. This genus is not sufficiently characterized to stand. It is prefixed to a species called by the authors *A. demoticoïdes*, from Columbia, the short specific characterization of which at the end of the work throws no light on the matter.

NOTE on the Dexiid genus *Uromyia* Rob.-Desv.—The writer has published a note on this genus (Proc. Ent. Soc. Washington, ii, 100) calling attention to the fact that the name was first employed by Robineau-Desvoidy, and afterwards applied by Meigen, or a name so nearly like it as to be misleading and confusing, to a Phaniid. In order to avoid confusion in the use of the word, I propose for Meigen's genus the name *Neouromyia*.

NOTE on the Dexiid genus *Tropidomyia* Br. and Bgst.—Brauer and v. Bergenstamm (Zweifl. kais. Mus. W. iv, 119, 1889), have erected a genus which they called *Tropidomyia*, for a Dexiid from Syria. The name is preoccupied; Dr. Williston applied it to a South American Conopid, which he described in "Can. Ent.," January, 1888. Brauer's genus must, therefore, be given another name, and I propose that of *Neotropidomyia*.